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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/777,583

02/12/2004

Ralf Hauffe

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EXAMINER

HUGHES, JAMES P

ART UNIT

PAPER NUMBER

2883

DATE MAILED: 02/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/777,583

Applicant(s)

HAUFFE ET AL.

Examiner

James P. Hughes

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 22-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 27-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 091205 021204.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of the restriction requirement mailed on in the reply filed on November 16, 2005 is acknowledged.

### *Claim Objections*

2. Claims 5 and 15 are objected to because the claims do not clearly identify the claimed invention. The claims recite that the "first and second reflective regions are located on a side of the plate that is *further* from the light emitting device and the optical monitor" (emphasis added). The claims are unclear as to a reference point from which the first and second reflective regions are further from. Appropriate action is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Cohen et al. (2002/0196500). Cohen et al. (2002/0196500) teaches an optical module and corresponding method comprising: emitting light (e.g. 74) from a solid state laser (e.g. 62) through a plate – or cover – (e.g. 76) that is transported to light (74) emitted by laser (62). Additionally, said plate

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(76) reflects a portion (e.g. 74') of the emitted light (74) at a first reflective region in the plate (e.g. via coating 78 on plate 76). The reflected light is received at a second reflective region (e.g. 82) in the plate and directs said received light (74') to an optical monitor (e.g. photo diode 64) enclosed within a same housing as the laser (62). (See e.g. Paragraphs 33-55 and Figs. 3-4)

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. (2002/0196500). Cohen teaches an optical module and corresponding method as discussed above. Cohen does not explicitly teach that the first and second regions comprise grooves in a surface of the plate. However, it would have been obvious to one of ordinary skill in the art at the time of invention to employ grooves to form the reflective surfaces because Cohen teaches angled reflecting surfaces (e.g. 76) and such surfaces can be formed via grooves as is commonly employed in the art. Cohen does not explicitly teach emitting device and optical monitor or that the electrical feeds are hermetically sealed. However, it would have been obvious to one of ordinary skill in the art at the time of invention to provide such hermetical seals as is well known in the art because such sealing will allow an efficient, reliable, device because it will protect the solid state laser from environmental conditions which will allow more stable operation.

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However, Cohen does not explicitly teach that the plate includes a lens. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ a lens in the plate of Cohen as lenses are well known in the art to focus light. One would have been motivated to incorporate the lens (e.g. 74') of Cohen into the reflector (e.g. 76, 82) of Cohen because doing so would simplify the device and Cohen and allow alignment of lens with the laser light.

5. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hauer et al. (5,696,862). Hauer teaches an optical module and method comprising: emitting light from a solid state device (VCSEL) through a plate (e.g. T2, T3) that is transparent to light emitted by the light emitting device; reflecting a portion of the emitted light at a first reflective region (e.g. V32 or S31; Fi1) in the plate; receiving the reflected light at a second reflective region (e.g. S31 or V32) in the plate and directing the received light to an optical monitor (e.g. PD) enclosed in the same system as the solid state device. Additionally, a portion of light may be reflected at a first reflective region (e.g. V32 or S31, Fi1) in a direction substantially perpendicular to a direction of light emitted by the light emitting device; using a second reflective region (e.g. S31 or V32) to reflect some of the light reflected by the first reflective region to an optical monitor (e.g. PD or optical fiber Fa.)

While Hauer does not explicitly teach that the optical monitor (e.g. PD) enclosed within a same housing as the solid state device, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the optical monitor and laser in the same housing to provide an efficient device which is protected from the local environment.

*Conclusion*

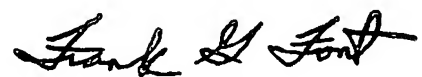
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cohen et al. (6,873,799) is the U.S. Patent corresponding to PG Pub 2002/0196500. Kilian (6,856,717, 2004/010836) teaches an optical module and method of sending light comprising: a substrate (22) with an hermetically sealed recess (28) wherein an optical emitter (30) and optical monitor (32) are mounted. The other references listed on the attached PTO 892 form list similar optical module device as is currently claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James P. Hughes whose telephone number is 571-272-2474. The examiner can normally be reached on Monday - Friday 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James P. Hughes  
Patent Examiner  
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